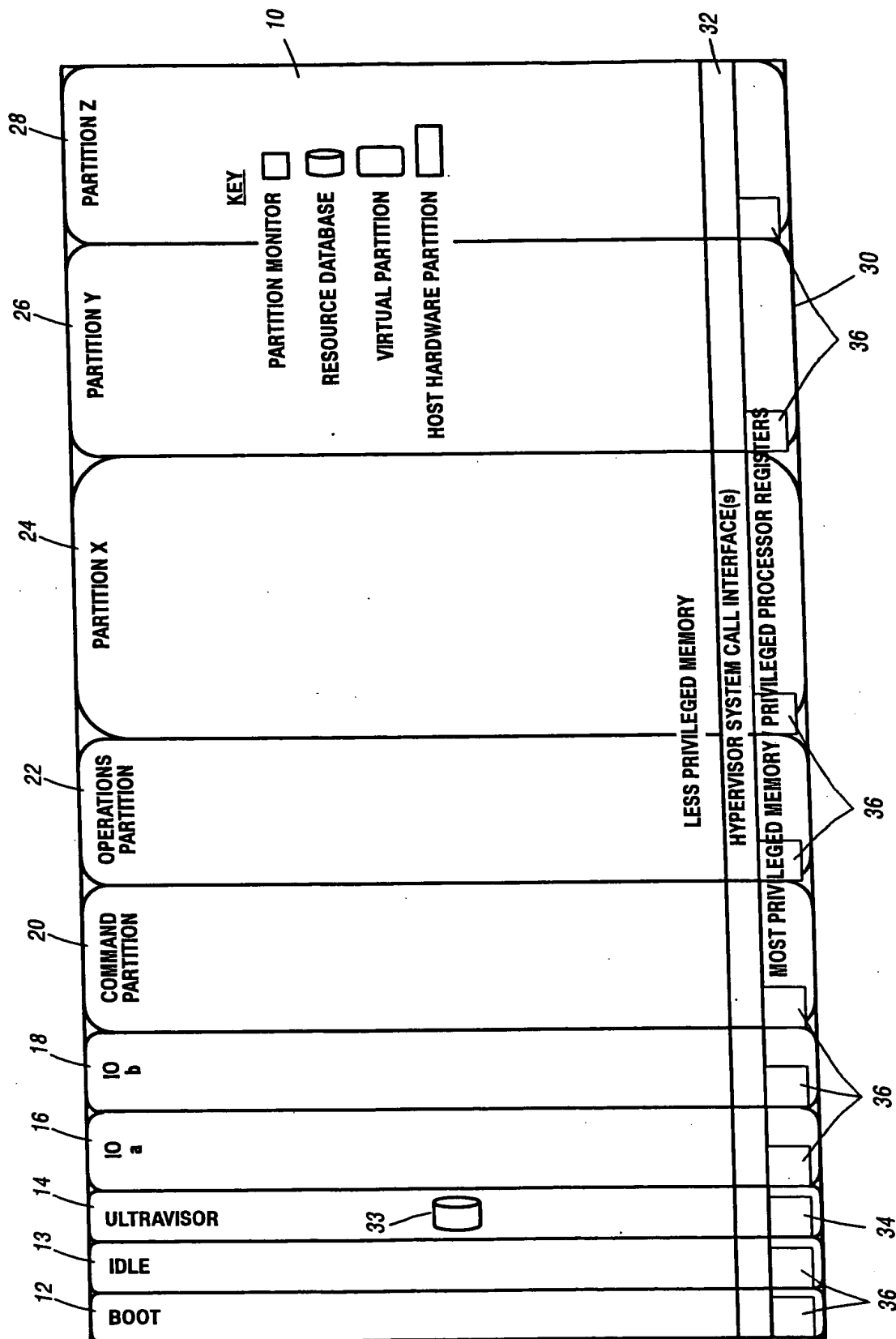


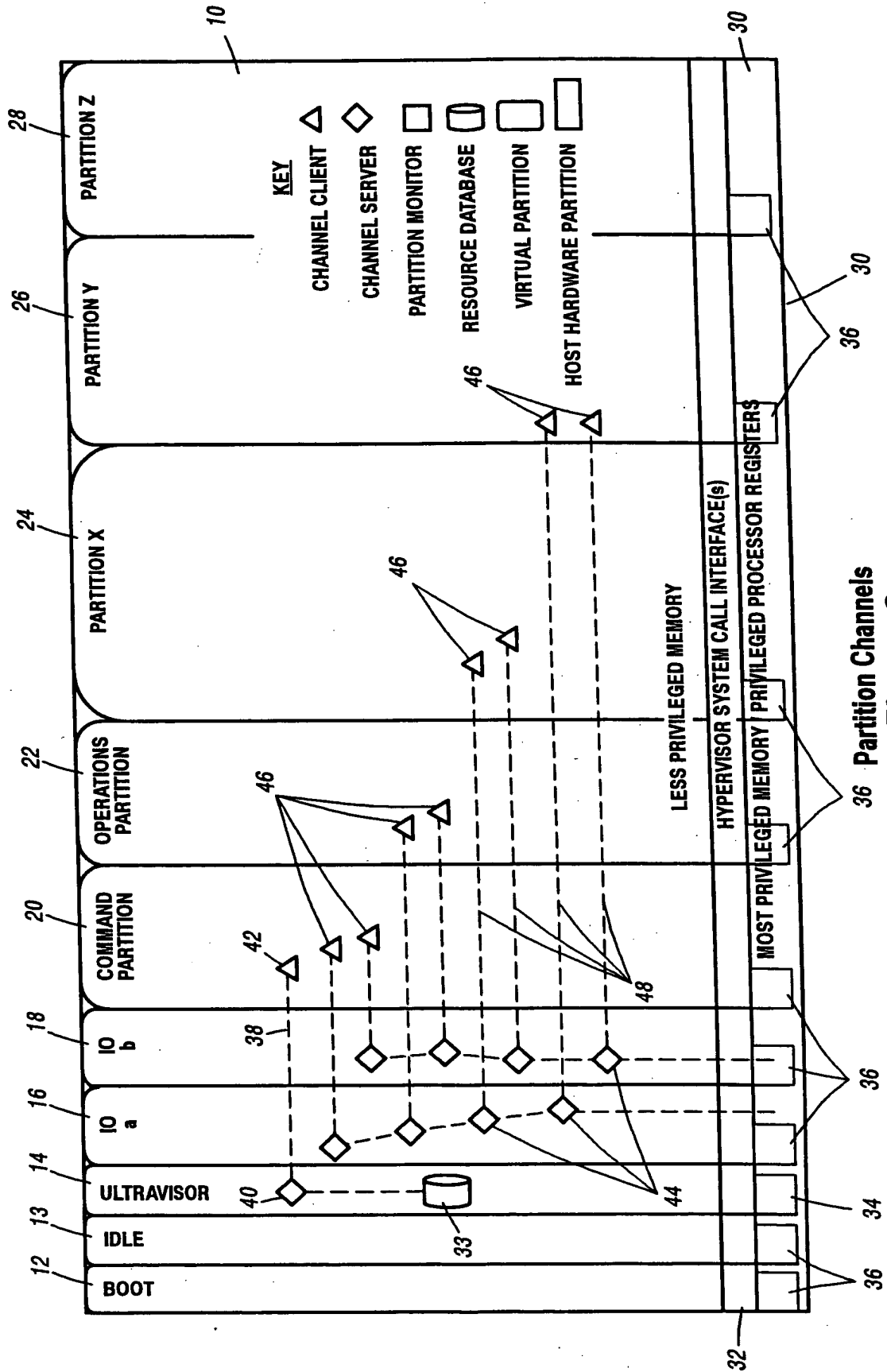
Partitioned Host System

**Figure 1**

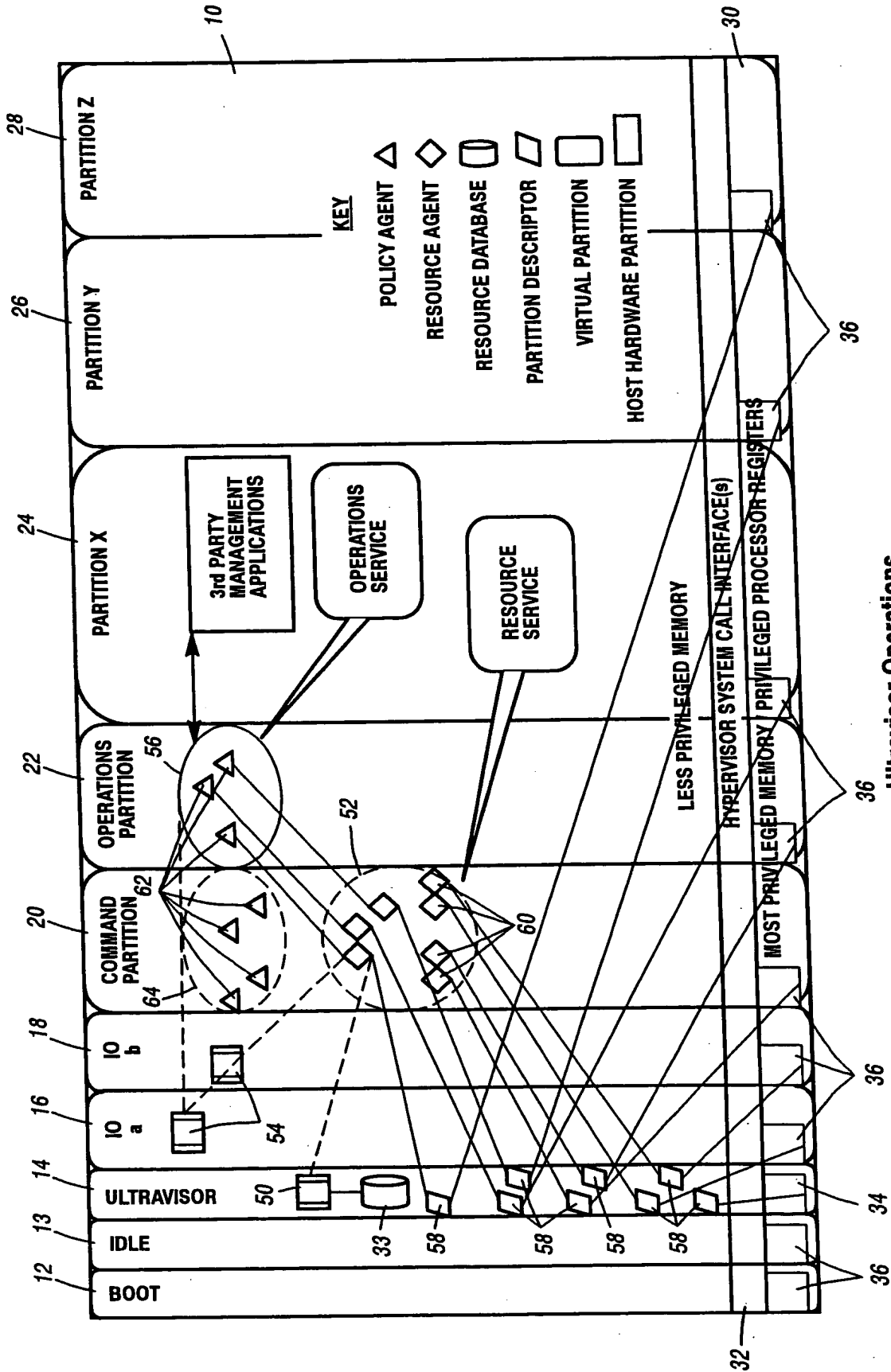


Partition Monitors

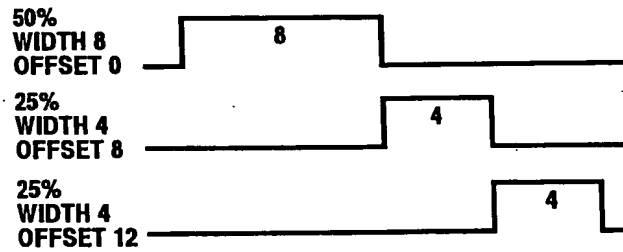
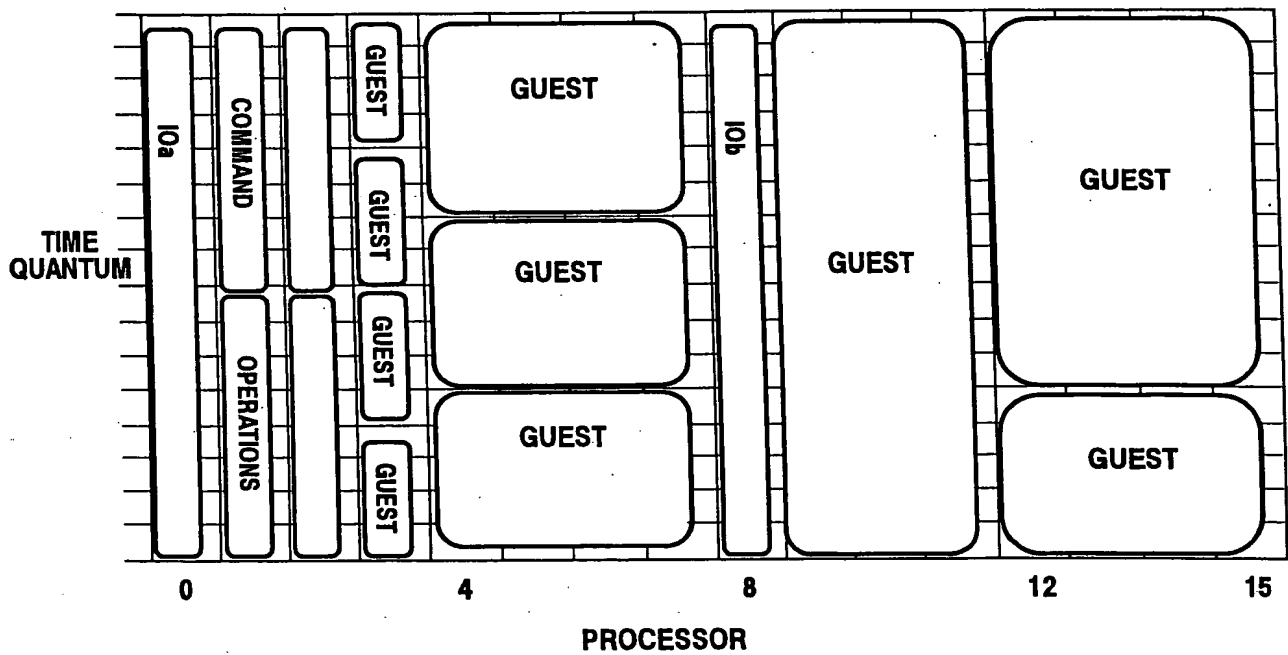
**Figure 2**



Partition Channels  
**Figure 3**



**Ultravisor Operations**  
**Figure 4**

**OVERLAPPED PROCESSOR THROTTLING - DEFAULT 4 BIT DUTY WIDTH (1/16 = 6.25%)****Processor Sharing****Figure 5****Processor Schedule****Figure 6**

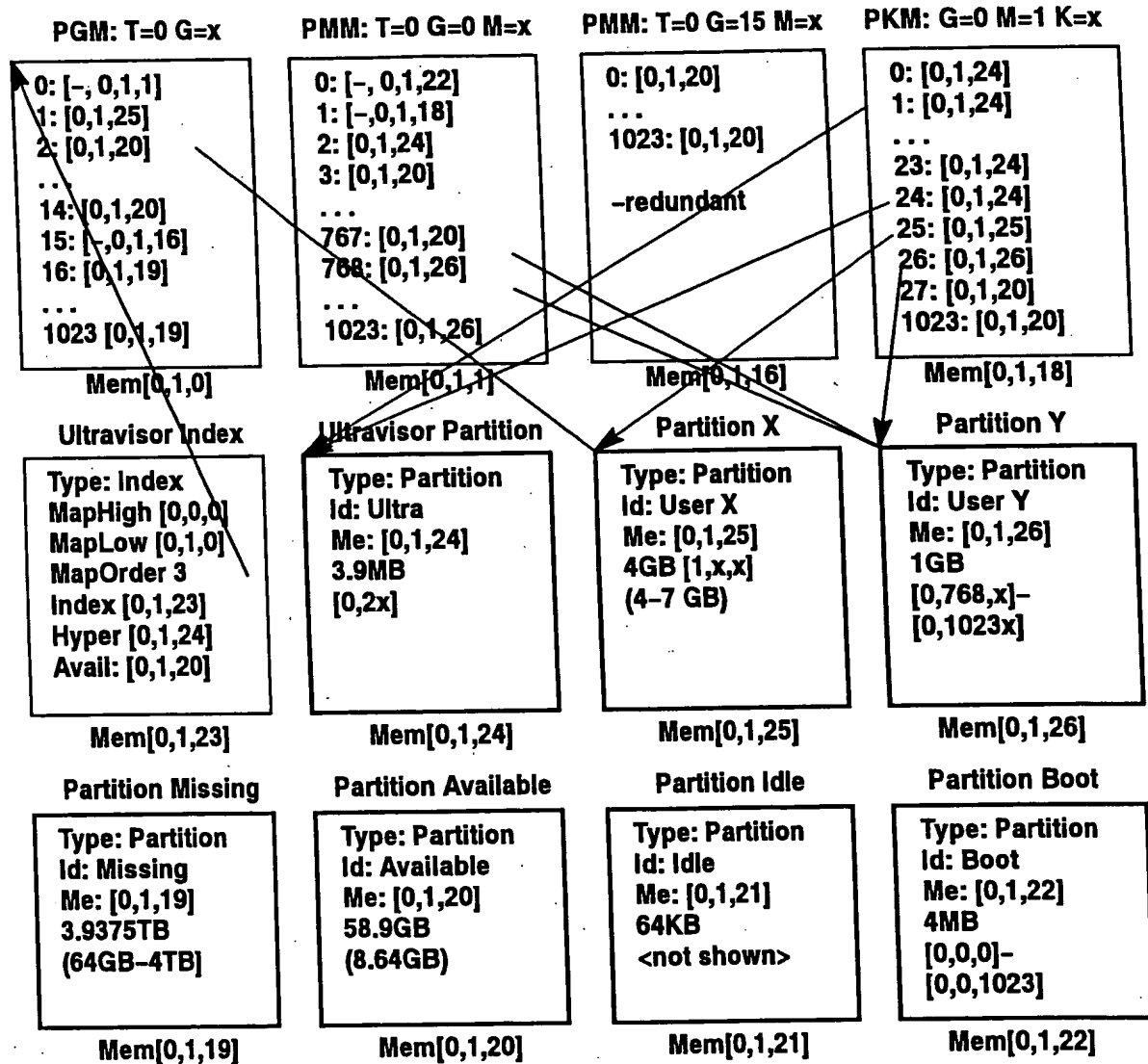
$(2^{10})^n$	SI Prefix	SI Name	Page Table	Pageantry	IA32/EM32T
1	K	kilo	PKM	PKE	PT/PTE
2	M	mega	PMM	PME	PD/PDE
3	G	giga	PGM	PGE	PDP
4	T	tera	PTM	PTE	PML4
5	P	peta	PPM	PPE	
6	E	Exa	PEM	PEE	
7	Z	zetta	PZM	PZE	
8	Y	yotta	PYM	PYE	

SI Prefixes for Page Table Hierarchy

**Figure 7**

Function GetMemoryOwner [T : 0..1023, G:0..1023, M:0..1023, K:0..1023] of Int32

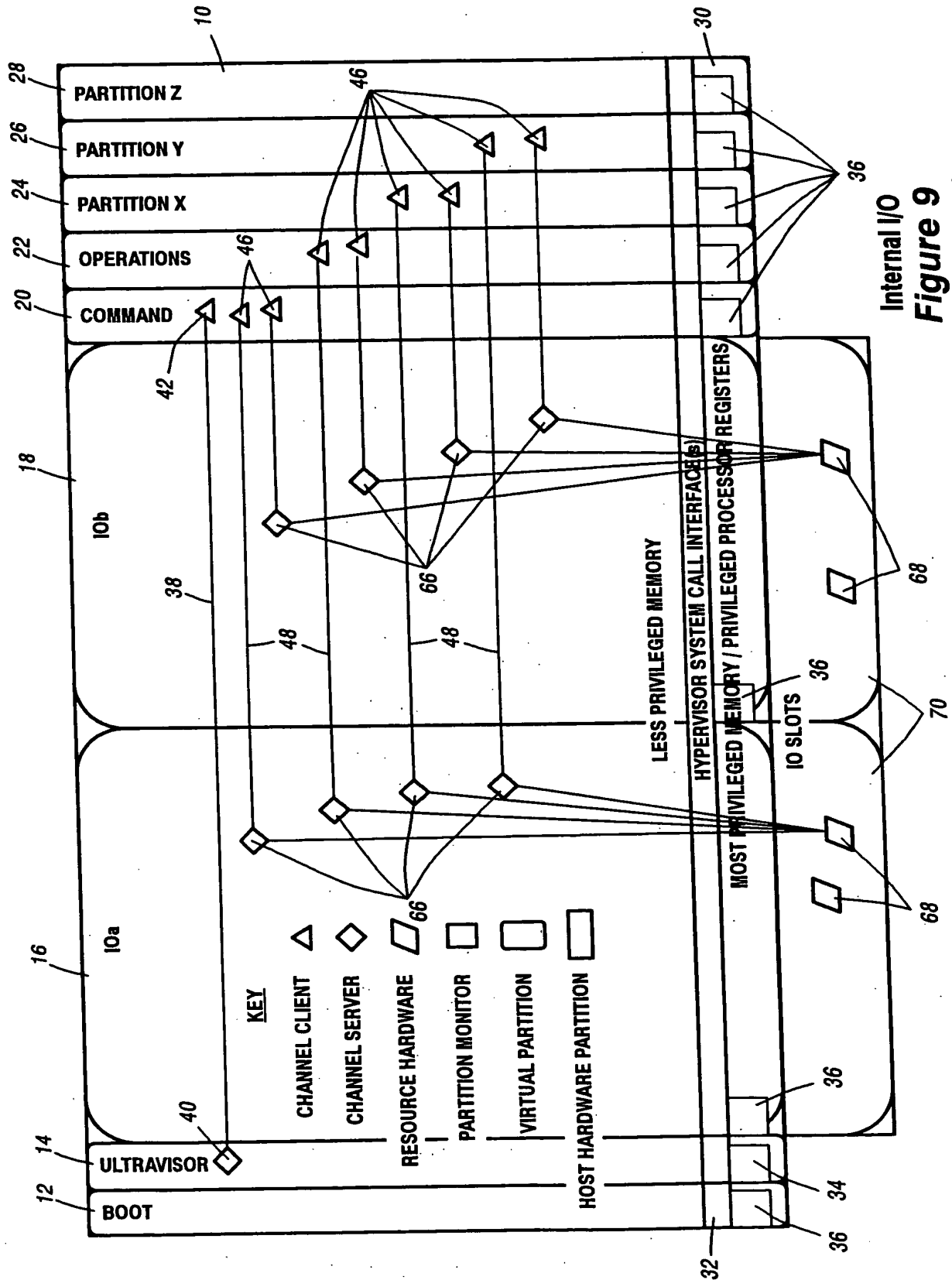
Memory Index Ref	1	GB	MB	KB
Partition number (32 bits)	O S	Node (GB)	MB	KB



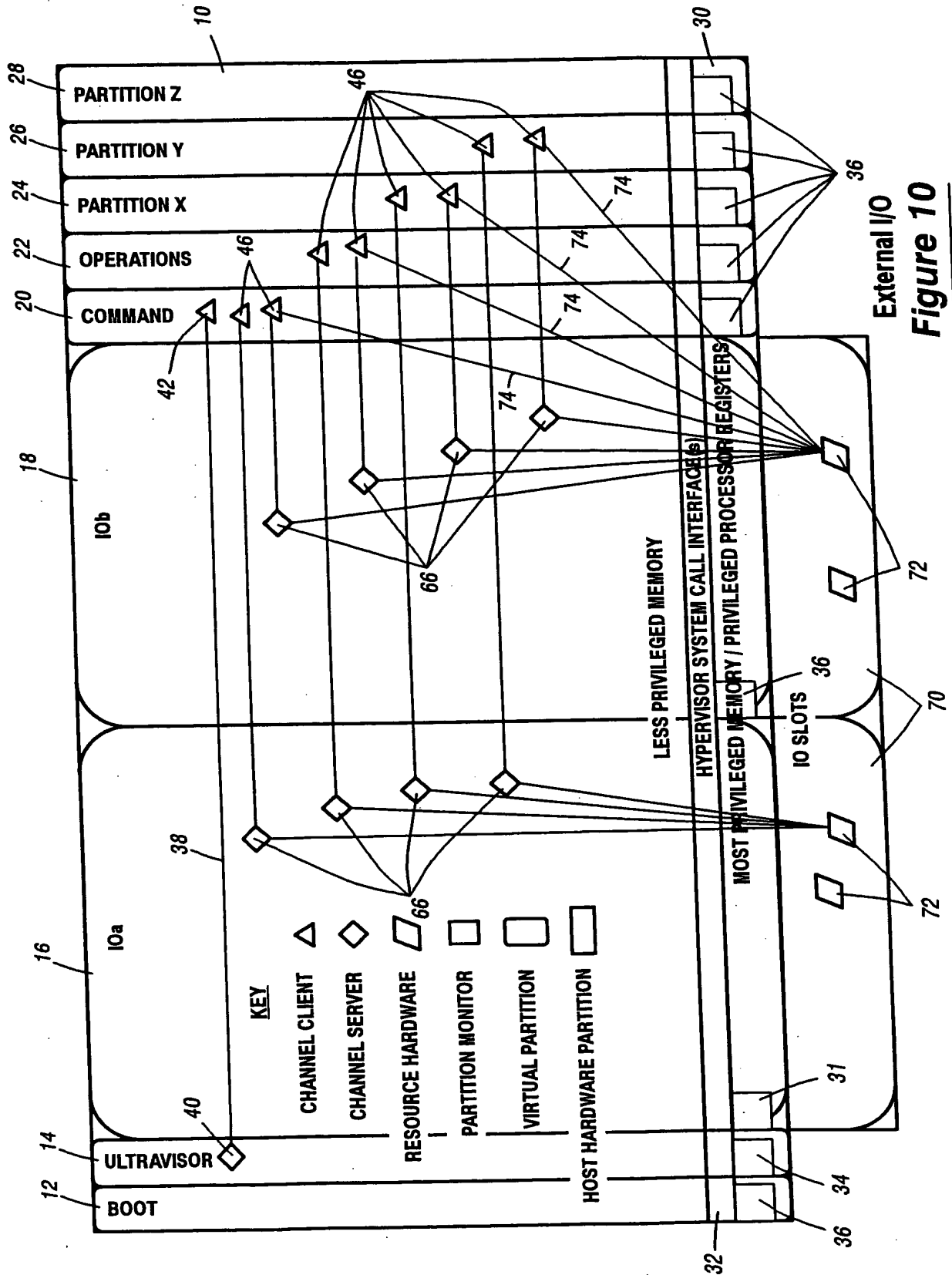
Where  $\text{Mem}[G,M,K] := ((G * 2^{10} + M) * 2^{10} + K) * 2^{10} * 2^{10}$

Partition Memory Map

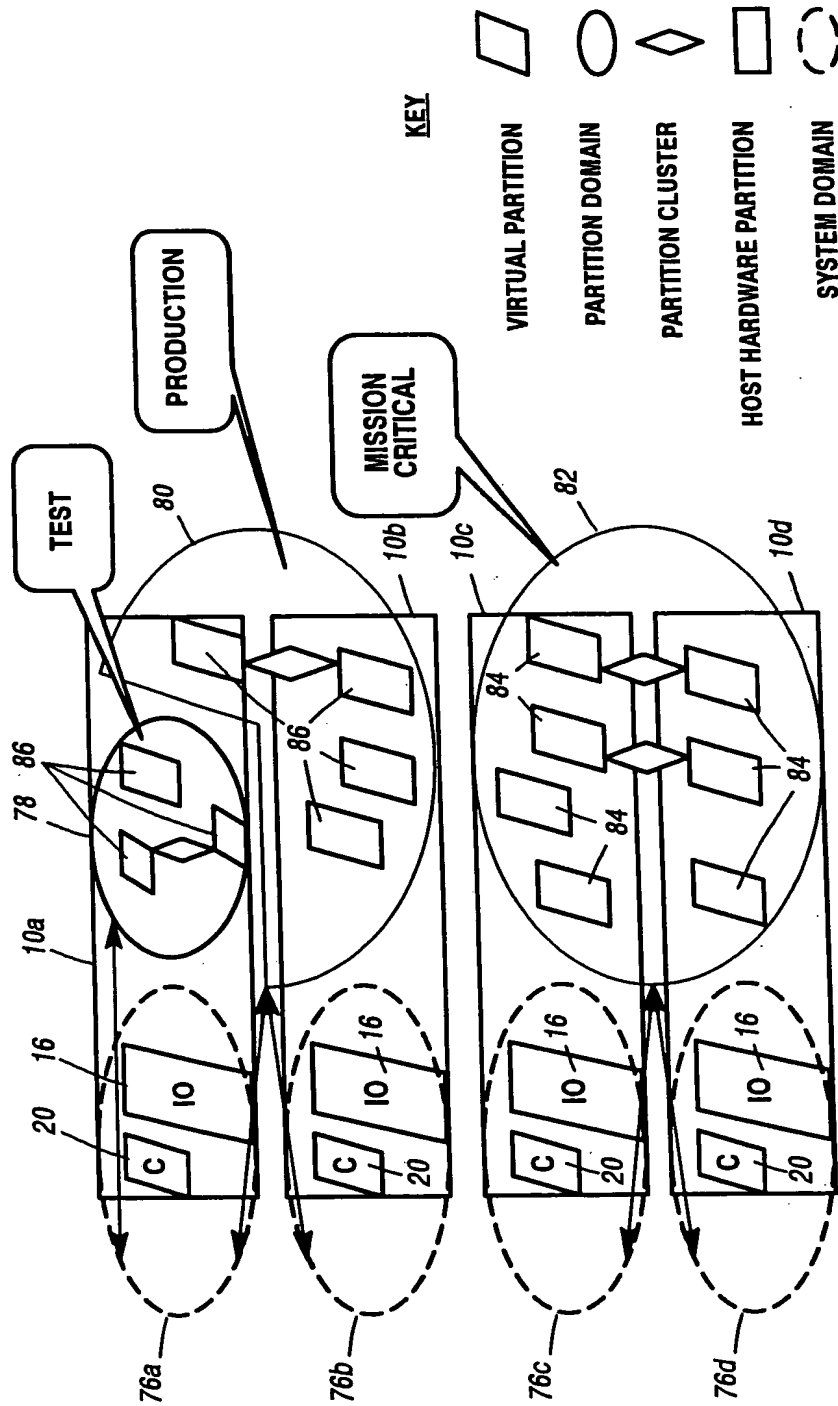
**Figure 8**





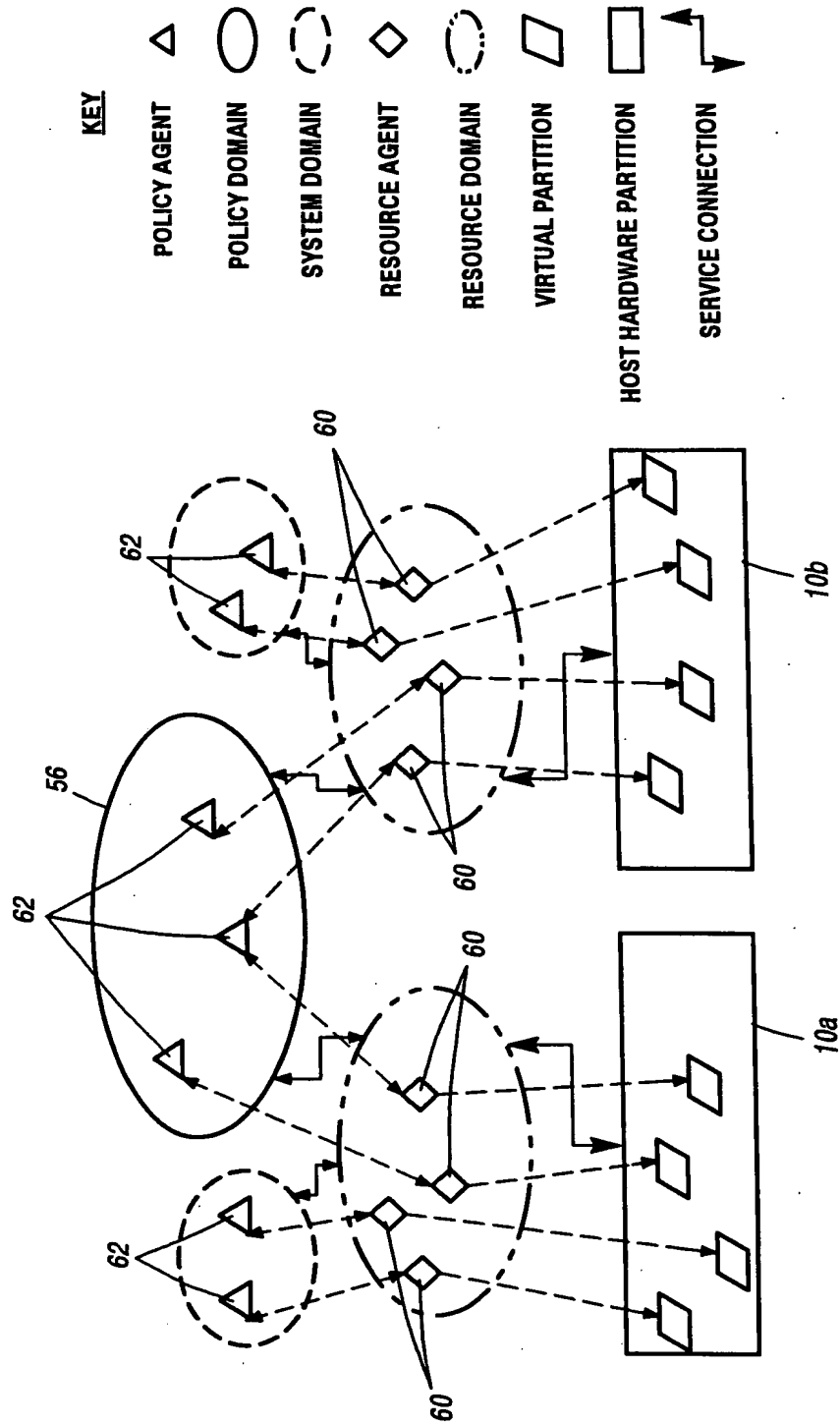


**Figure 10**



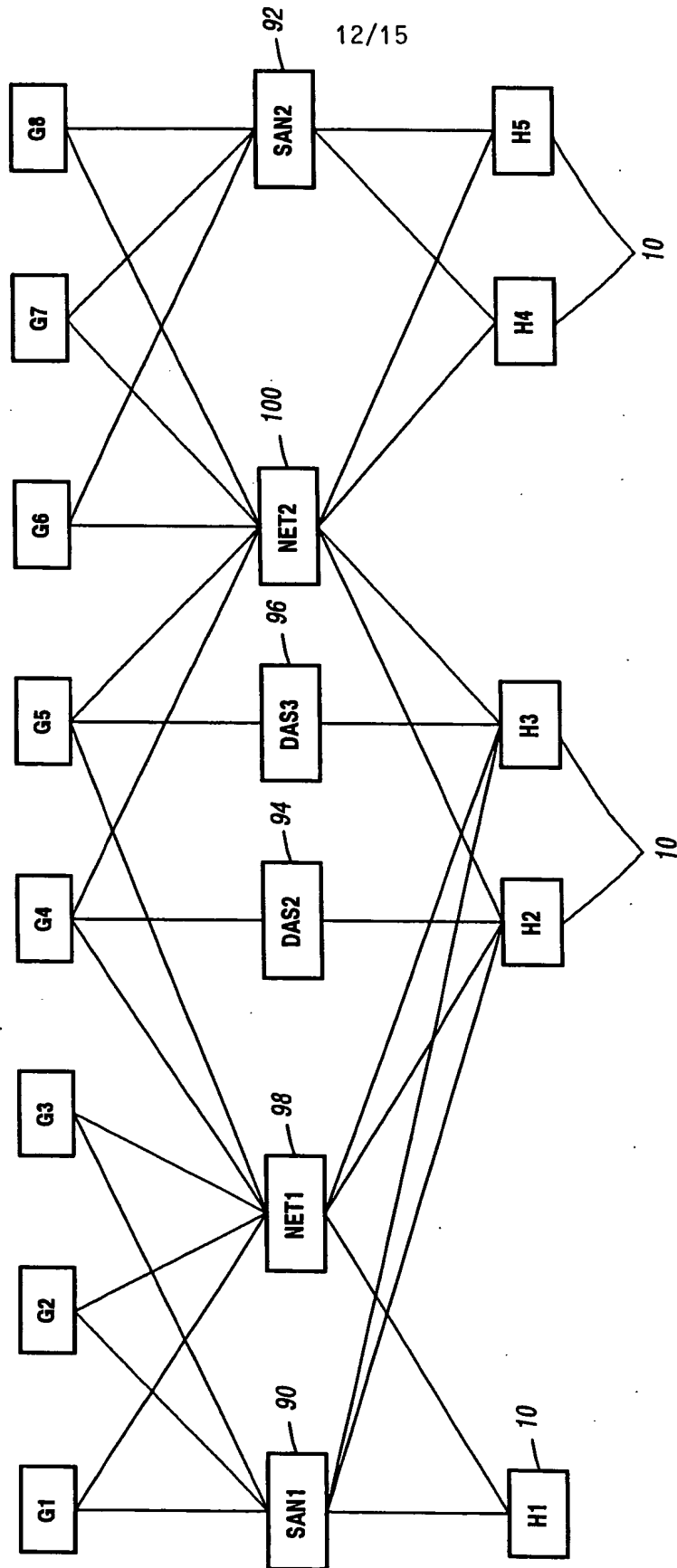
## Ultravisor Domains

## Figure 11

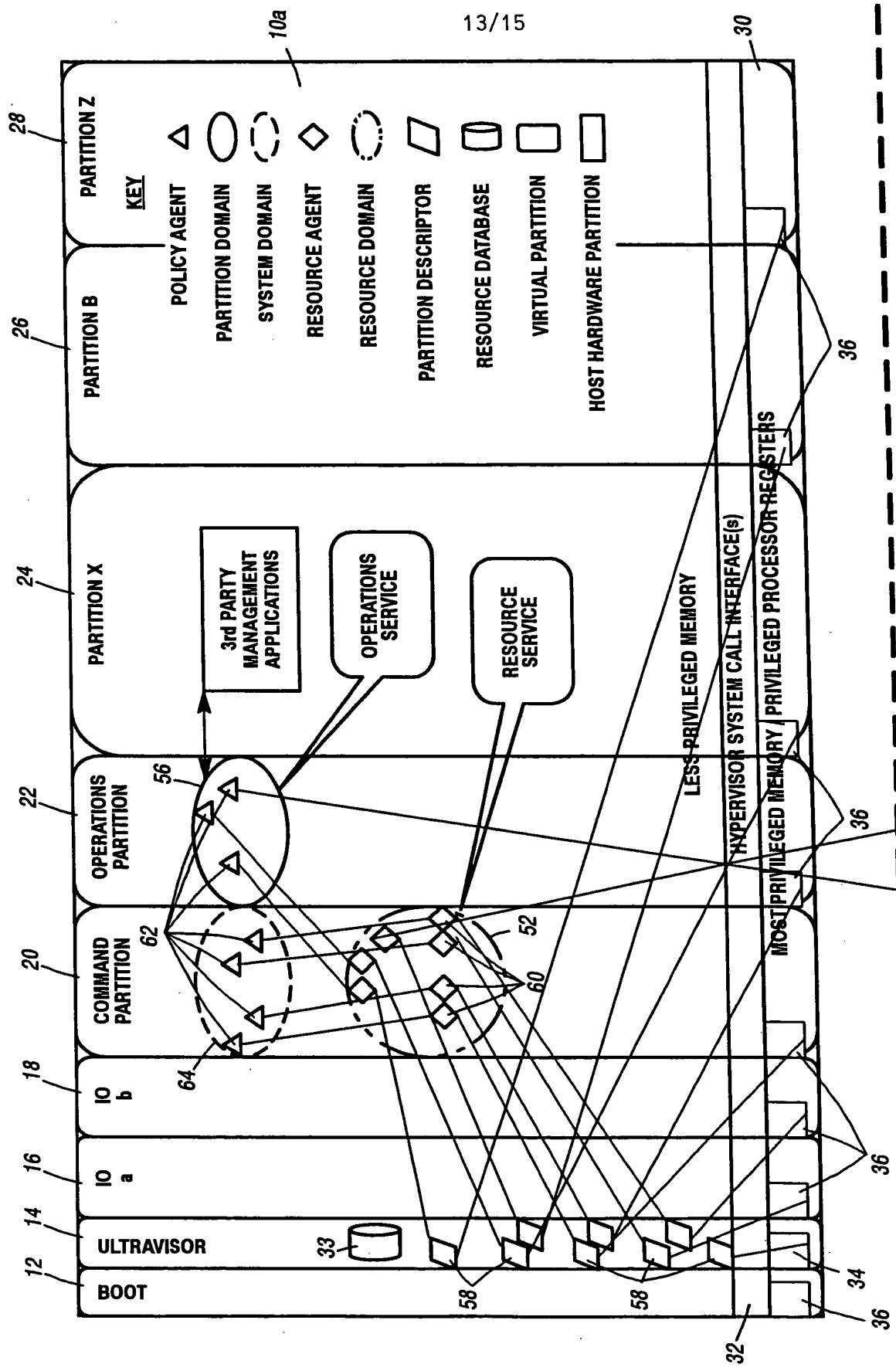


Ultravisor Partition Agents

**Figure 12**



Virtual Data Center Zones  
**Figure 13**

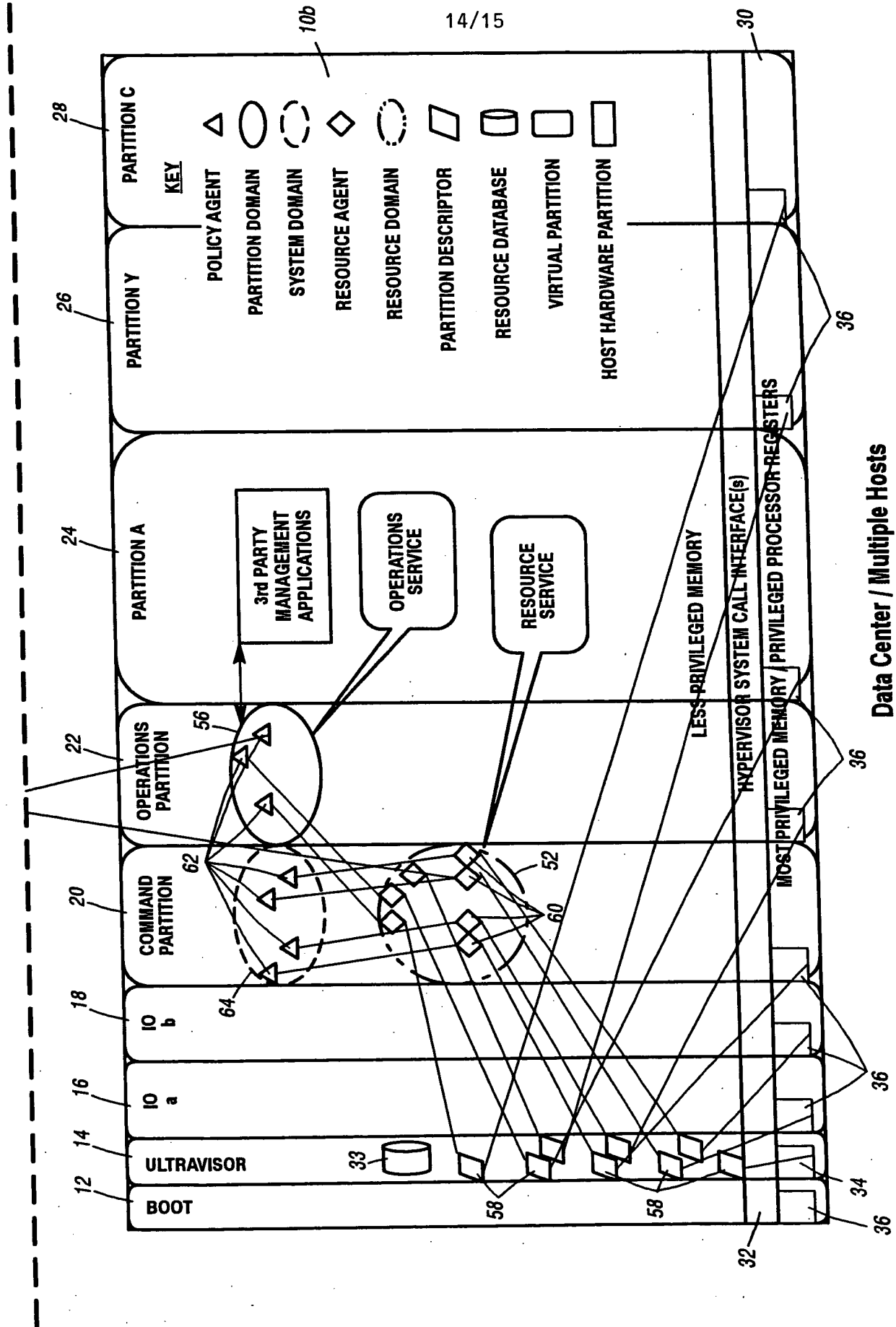


Data Center / Multiple Hosts

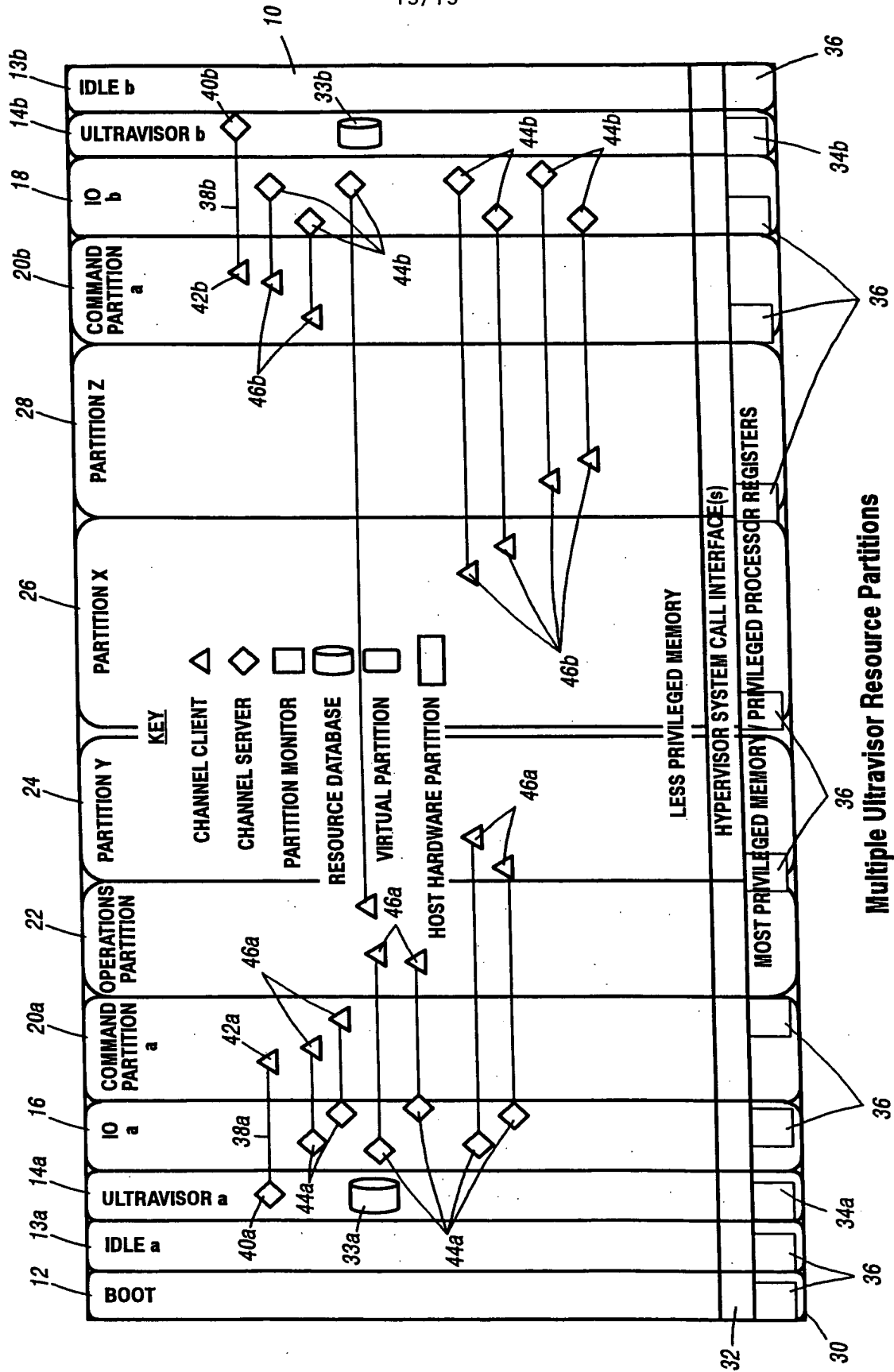
**Figure 14A**

**Figure 14**

Fig. 14A
Fig. 14B



Data Center / Multiple Hosts  
**Figure 14B**



**Multiple Ultravisor Resource Partitions**  
**Figure 15**